

SLOT ARRAY ANTENNA AND PLASMA PROCESSING APPARATUS

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ABSTRACT OF THE DISCLOSURE

A slot array antenna, comprising: a power feeding waveguide for feeding microwave power; and a plurality of rectangular radiating waveguides connected to a plurality of windows which are disposed along the longitudinal direction of the power feeding waveguide, so as to guide the microwave power from the plurality of windows to the outside of the antenna. In each of the radiating waveguides, the interval "d" between the centers of gravity of slot pairs or slots is substantially the same as the wavelength  $\lambda_m$  of the microwave in the rectangular radiating waveguide.

There are provided the slot array antenna and a plasma processing apparatus, which are capable of increasing the plasma density in the plasma-processing chamber.